TELEPHONE INTERFACE FOR A PORTABLE COMMUNICATION DEVICE

RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Patent Application No. 60/756,831, filed Jan. 5, 2006, entitled "Telephone Interface for Portable Communication Device," which application is incorporated by referenced herein in its entirety.

[0002] This application is related to U.S. patent application Ser. No. _____, filed xxx, entitled "Text Entry Interface for a Portable Communication Device," Attorney Docket 063266-5032-US, which application is incorporated by reference herein in its entirety.

[0003] This application is related to U.S. patent application Ser. No. _____, filed xxx, entitled "Replay Recommendations in a Text Entry Interface," Attorney Docket 063266-5050-US, which application is incorporated by reference herein in its entirety.

TECHNICAL FIELD

[0004] The disclosed embodiments relate to user interfaces, and in particular, to telephone user interfaces that include a click wheel.

BACKGROUND

[0005] As portable devices become more compact, and the amount of information to be processed and stored increases, it has become a significant challenge to design a user interface that allows users to easily interact with the device. This is unfortunate since the user interface is the gateway through which users receive not only content but also responses to user actions or behaviors, including user attempts to access a device's features or tools. Some portable communication devices (e.g., mobile phones) have resorted to adding more pushbuttons, increasing the density of push buttons, overloading the functions of pushbuttons, or using complex menu systems to allow a user to access, store and manipulate data. These conventional user interfaces often result in complicated key sequences and menu hierarchies that must be memorized by the user. In addition, as the number of pushbuttons has increased, the proximity of neighboring buttons often makes it difficult for users to activate a desired pushbutton.

[0006] Many conventional user interfaces, such as those that include physical pushbuttons, are also inflexible. This is unfortunate because it may prevent a user interface from being configured and/or adapted by either an application running on the portable device or by users. When coupled with the time consuming requirement to memorize multiple key sequences and menu hierarchies, and the difficulty in activating a desired pushbutton, such inflexibility is frustrating to most users.

[0007] Accordingly, there is a need for more transparent and intuitive user interfaces for portable electronic devices that are easy to use, configure, and/or adapt.

SUMMARY OF EMBODIMENTS

[0008] The above deficiencies and other problems associated with user interfaces for portable devices are reduced or eliminated by the disclosed portable communication device that includes a telephone user interface.

[0009] In some embodiments, a method includes displaying a first image of a rotary dial in a display of the portable communications device in response to a first contact by a user with a click wheel. The first image of the rotary dial includes a plurality of icons arranged proximate to a periphery of the rotary dial. The plurality of icons include numbers.

[0010] The method may include scrolling around at least a portion of the first image of the rotary dial in response to one or more navigation commands received from the click wheel. The one or more navigation commands may correspond to the user moving the first contact around at least a portion of the click wheel. A respective icon in the plurality of icons corresponding to a current position on the first image of the rotary dial may be highlighted. Explanations of one or more functions corresponding to one or more symbols on the click wheel in the display may be displayed.

[0011] The method may include receiving a first user command using the click wheel. The first user command may correspond to a selection of a respective icon in the plurality of icons. The first user command may include pushing down on the click wheel. The method may include displaying a sequence of one or more selected icons in the display.

[0012] In some embodiments, one or more letters corresponding to the respective icon are displayed along a radial direction of the first image of the rotary dial. In some embodiments, one or more letters corresponding to the respective icon are displayed in a central region of the first image of the rotary dial.

[0013] In some embodiments, the method includes displaying a second image of the rotary dial in the display of the device in response to the user breaking the first contact with the click wheel. The second image of the rotary dial has a different shading pattern than the first image of the rotary dial. The second image of the rotary dial may be displayed if the user breaks the first contact for a time interval greater than a pre-determined value. For example, the first image of the rotary dial may be faded out and the second image of the rotary dial may be faded in over a pre-determined time interval. The first image of the rotary dial may correspond to a character entry mode of operation and the second image of the rotary dial may correspond to a character correction mode of operation.

[0014] In some embodiments, the method includes removing one or more previously selected icons in response to receiving a second user command using the click wheel, wherein the second user command includes pressing on a delete symbol on the click wheel. The second image of the rotary dial may include an icon corresponding to the delete symbol on the click wheel.

[0015] In some embodiments, the method includes dialing a telephone number corresponding to the sequence of selected icons in response to receiving a third user command. The third user command may include pressing a click wheel button, such as a button at the center of the click wheel. The first image of the rotary dial may be modified in accordance with an animation sequence during the dialing. Music, such as a portion of a music file, may be played during the dialing. Volume may be adjusted during a tele-